

2SA1029, 2SA1030

Silicon PNP Epitaxial

REJ03G0633-0300
(Previous ADE-208-1004A)
Rev.3.00
Aug.10.2005

Application

- Low frequency amplifier
- Complementary pair with 2SC458 and 2SC2308

Outline

RENESAS Package code: PRSS0003DA-A
(Package name: TO-92 (1))



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	2SA1029	2SA1030	Unit
Collector to base voltage	V_{CBO}	-30	-55	V
Collector to emitter voltage	V_{CEO}	-30	-50	V
Emitter to base voltage	V_{EBO}	-5	-5	V
Collector current	I_C	-100	-100	mA
Emitter current	I_E	100	100	mA
Collector power dissipation	P_C	300	300	mW
Junction temperature	T_j	150	150	°C
Storage temperature	T_{stg}	-55 to +150	-55 to +150	°C

Electrical Characteristics

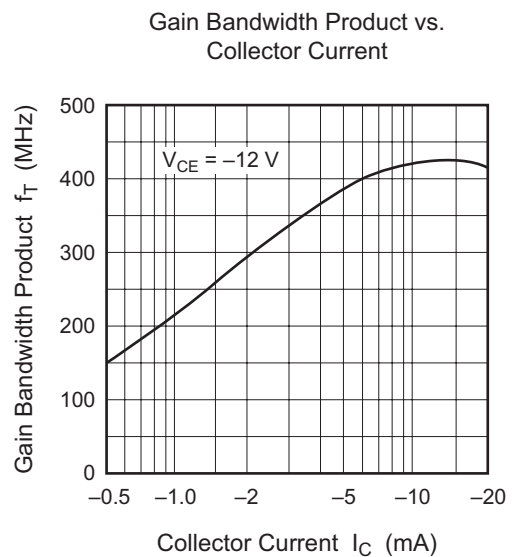
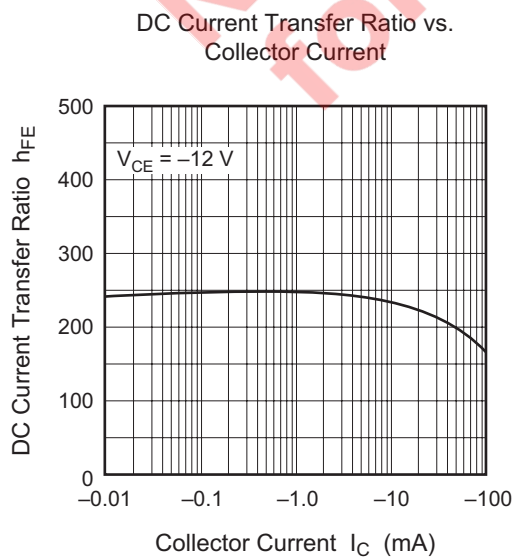
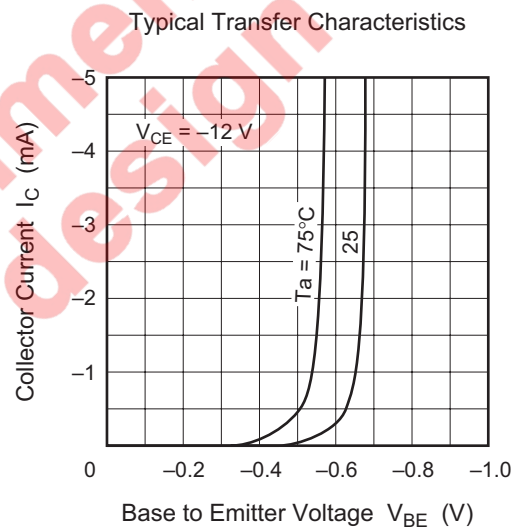
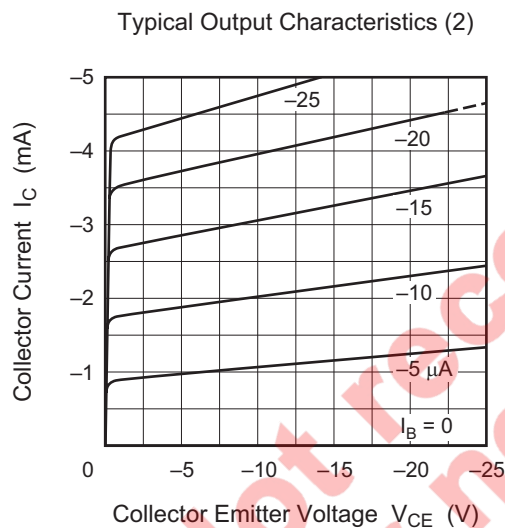
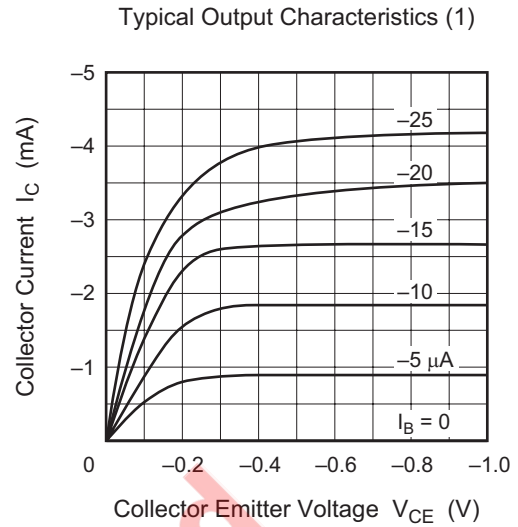
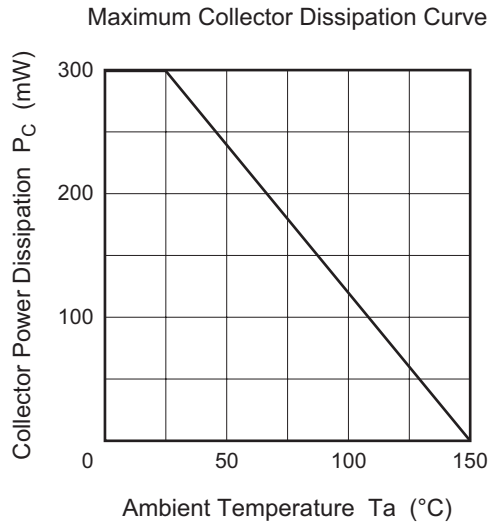
(Ta = 25°C)

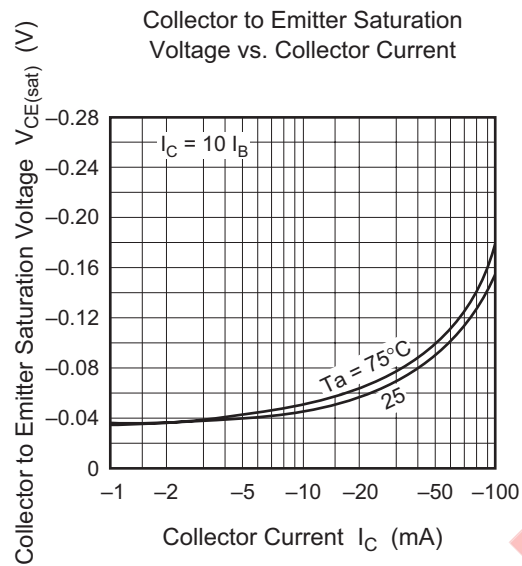
Item	Symbol	2SA1029			2SA1030			Unit	Test conditions
		Min	Typ	Max	Min	Typ	Max		
Collector to base breakdown voltage	$V_{(BR)CBO}$	-30	—	—	-55	—	—	V	$I_C = -10\ \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-30	—	—	-50	—	—	V	$I_C = -1\ mA, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-5	—	—	-5	—	—	V	$I_E = -10\ \mu A, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	-0.5	—	—	-0.5	μA	$V_{CB} = -18\ V, I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	-0.5	—	—	-0.5	μA	$V_{EB} = -2\ V, I_C = 0$
DC current transfer ratio	h_{FE}^{*1}	100	—	500	100	—	320		$V_{CE} = -12\ V,$ $I_C = -2\ mA$
Base to emitter voltage	V_{BE}	—	—	-0.8	—	—	-0.8	V	$V_{CE} = -12\ V,$ $I_C = -2\ mA$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-0.2	—	—	-0.2	V	$I_C = -10\ mA,$ $I_B = -1\ mA$
Gain bandwidth product	f_T	200	280	—	200	280	—	MHz	$V_{CB} = -12\ V,$ $I_C = -2\ mA$
Collector output capacitance	C_{ob}	—	3.3	4.0	—	3.3	4.0	pF	$V_{CB} = -10\ V, I_E = 0,$ $f = 1\ MHz$

Note: 1. The 2SA1029 and 2SA1030 are grouped by h_{FE} as follows.

	B	C	D
2SA1029	100 to 200	160 to 320	250 to 500
2SA1030	100 to 200	160 to 320	—

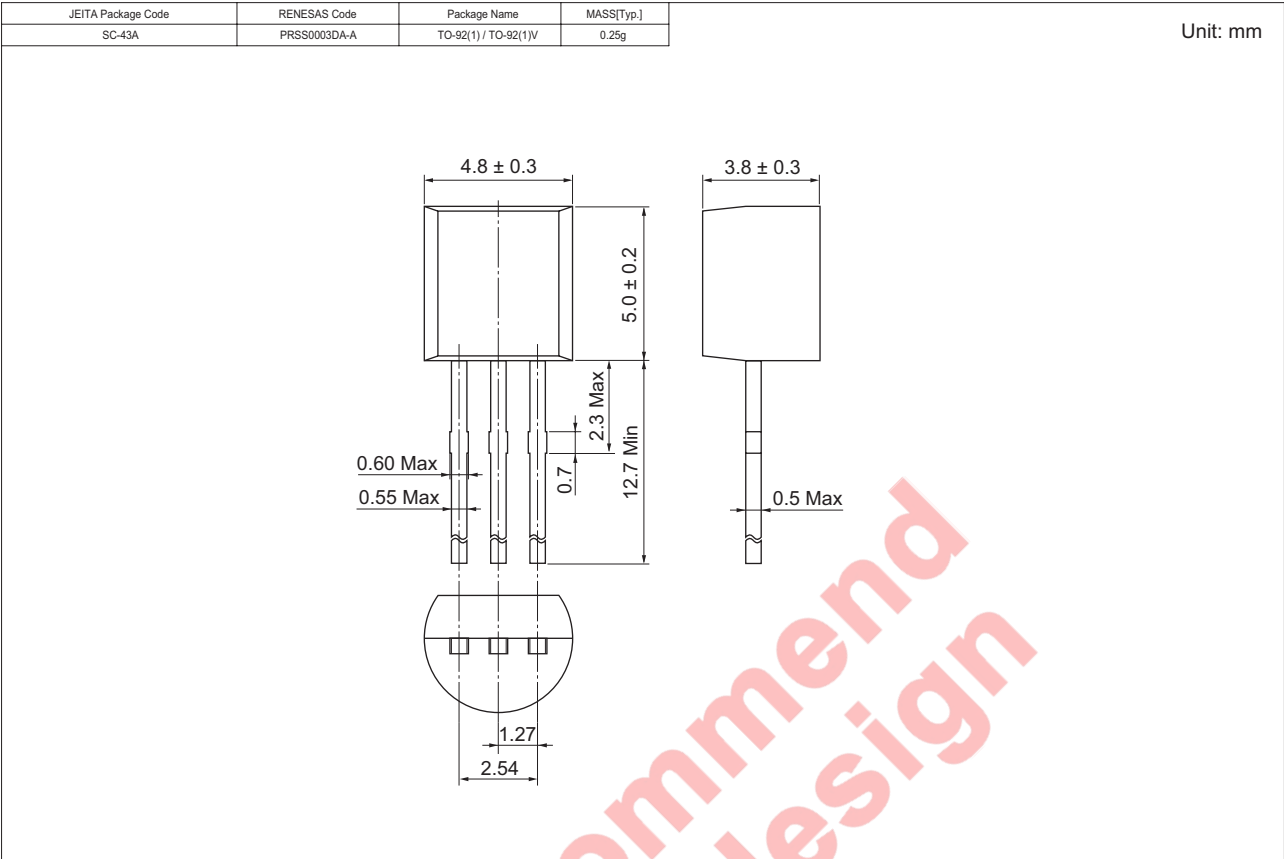
Main Characteristics





Not recommended
for new design

Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SA1029BTZ 2SA1029CTZ 2SA1029DTZ 2SA1030BTZ 2SA1030CTZ	2500	Hold Box, Radial Taping

Note: For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

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